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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,209	04/26/2006	Uwe Maass	MAASS-1 PCT	1420
25889	7590	04/13/2009	EXAMINER	
COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			SALVITTI, MICHAEL A	
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/577,209	MAASS, UWE	
	Examiner	Art Unit	
	MICHAEL A. SALVITTI	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-22 is/are pending in the application.
 - 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-22 is/are rejected.
- 7) Claim(s) 1-22 is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date <u>04/26/2006</u> .	6) <input type="checkbox"/> Other: ____ .

DETAILED ACTION

Claim Objections

Claim 1 recites the limitation "usual mixture ingredients" in line 4. This is an indefinite term. For the purposes of further examination, the term will be treated as meaning components such as (but not limited to) inorganic filler, cross-linkers, plasticizers and accelerators (based upon page 3 of specification).

Claims 8-9 and 16-17 are objected to because of the following informalities: These claims state a weight percent, but do not state whether the weight percentage is a percentage of the total composition, or rather a percentage the polymeric components (which is common in the literature). For the purposes of further examination, it was determined that the specification supports percentage of total composition; claims 8 and 9 were interpreted on that basis. Appropriate correction is required.

Claim 10 recites the limitation "vulcanization agent" in line 4. The specification refers to a "vulcanization activator" (page 3). It is unclear whether these two terms are synonymous.

Claims 2-22 are objected to for their dependencies on claim 1, while failing to correct the deficiencies of claim 1.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 6, 7, 12-14, 18-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "unblended" in line 3. There is insufficient antecedent basis for this limitation in the claim. For the purposes of further examination, "unblended" will be examined as a single rubber component (although not necessarily a single polymeric component), as per pages 2-3 of instant specification.

Regarding claims 6 and 7: The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. The phrase "on the basis" appears to be an improper Markush format. For the purposes of further examination, the examiner has examined claims 6 and 7 as following proper Markush format, as stated in MPEP § 2173.05(h). "...selected from a group consisting of carbon black, silicic acids, silicates, chalk and mixtures thereof" (claim 6); "...selected from a group consisting of carbon black, magnesium silicate, chalk and mixtures thereof." (claim 7).

Regarding claims 12-14, 18-20: The phrase "particularly" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention or merely exemplary. See MPEP § 2173.05(d).

Claims 13-22 provide for the use of the material for use in contact with drinking water, but, since the claims do not set forth any steps involved in the method/process, it

is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 13-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 13-22 are rejected under 35 U.S.C. 101 because the claimed recitation of uses, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 and 12-19 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0294181A3 to *Kitami et al.*

Regarding claim 1: *Kitami* discloses a material for transporting fluids (see abstract). This material is based upon a vulcanized halogenated rubber (Br-IIR; page 5, line 15). Usual mixture ingredients are specified (page 5, lines 15-25).

Regarding claim 2: *Kitami* discloses a halogenated rubber, Br-IIR (page 5, line 15). This is a bromobutyl rubber (page 3, line 8).

Regarding claim 3: *Kitami* discloses unblended rubber in IIR-4 (page 5, lines 15-25), in that Br-IIR is the only rubber component present in the embodiment.

Regarding claims 4-5: *Kitami* teaches a material wherein the rubber component is 48.7% (100 parts rubber/205.5 parts total; page 5, lines 15-25).

Regarding claims 6 and 7: *Kitami* teaches carbon black (page 5, line 16).

Regarding claims 8 and 9: *Kitami* teaches carbon black comprising 19.5% of IIR-4 (page 5, lines 15-25).

Regarding claim 10: *Kitami* teaches a zinc oxide (page 5, line 23). As admitted by the applicant, this is a crosslinking agent (page 3, third paragraph of instant spec.). An accelerator is also present (page 5, line 25).

Regarding claim 12: *Kitami* teaches a composition low in plasticizer, particularly free of plasticizer. Approximately 5% of machine oil is added as a softener (page 5, line 21).

Regarding claim 13: *Kitami* teaches the material of claim 1 used for the production of a hose (see abstract). The hose comprises a core (inner tube; page 2,

line 2) and a cover (outer cover; page 2, line 2). Reinforcement is taught (Figure 1, part 30; also page 2, lines 37-43).

Regarding claim 14-17: *Kitami* teaches a composition low in plasticizer, particularly free of plasticizer. Approximately 5% of machine oil is added as a softener (page 5, line 21).

Regarding claim 18: *Kitami* teaches the material of claim 1 used for the production of a hose (see abstract). The hose comprises a core (inner tube; page 2, line 2) and a cover (outer cover; page 2, line 2). An inner core is in contact with the fluid (page 2, lines 15-18).

Regarding claim 19: *Kitami* teaches an inner lining of nylon materials (page 2, lines 15-18). These materials are plastics.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0294181A3 to *Kitami et al.* in view of Naftocit ZBEC MSDS (accessed from Internet Archive, July 2005 <http://web.archive.org/web/20050808080636/http://www.rdcsl.com/zbec.htm>); dating back to January 1998; see page 3 bottom.

Regarding claim 11: *Kitami* teaches a material according to claim 10, as set forth above. Zinc oxide is the vulcanization activator (page 5, line 23). An accelerator is taught (Na22; page 5, line 24), but zinc N-dibenzyl-dithiocarbamate (ZBEC) is not disclosed as an accelerator.

The ZBEC MSDS teaches zinc N-dibenzyl-dithiocarbamate as an ultra accelerator for vulcanizing natural or synthetic rubbers. These references are analogous art, in that they are drawn to the same field of endeavor, namely creating cured rubber products with accelerator additives. At the time of the invention, it would have been obvious to a person having ordinary skill in the art to use ZBEC as an accelerator, with the motivation of vulcanizing the rubber while providing a non-carcinogenic cure (see MSDS page 1). “It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art.” *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). See MPEP § 2144.06.

Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0294181A3 to *Kitami et al.*, as applied to claim 1 above, in view of U.S. Patent No. 5,813,603 to *Kurtz*.

Regarding claim 20: *Kitami* teaches the use of material of claim 1 as a rubber for hose material.

Kitami is silent regarding the materials' uses for the production of a membrane.

Kurtz teaches a material for the production of a membrane (see claims 1 and 2 of '603). These references are analogous art in that they are drawn to the same field of endeavor. Both references disclose the synthesis of butyl rubber derivatives with overlapping ranges of rubber components and additives. At the time of the invention, it would have been obvious to a person having ordinary skill in the art to process the composition of *Kitami* as into a membrane, with the motivation of creating a membrane of the type demonstrated by *Kurtz* which shows high resistance to cracking (see page 2, lines 19-24 of *Kitami*).

Regarding claim 21: *Kitami*'s rubber utilizes a low plasticizer content.

Approximately 5% of machine oil is added as a softener (page 5, line 21).

Regarding claim 22: *Kitami* teaches the use of material of claim 1 as a rubber for hose material.

Kitami is silent regarding the use of an active inhibitor. *Kurtz* teaches the use of additives such as fungicides (column 5, lines 62-68), which are active inhibitors for wastewater technology. At the time of the invention, it would have been obvious to a person having ordinary skill in the art to add an inhibitor into a rubber composition, with the motivation of preventing microbial growth.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL A. SALVITTI whose telephone number is (571)270-7341. The examiner can normally be reached on Monday-Thursday 8AM-7PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. A. S./
Examiner, Art Unit 1796

/David Wu/
Supervisory Patent Examiner, Art Unit 1796